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# Figures in the (land)scape: hybridity and transformation in education governance in England

Martin Lawn and Sotiria Grek

## 1. Introduction

The central hypothesis of the research project this chapter builds on, ‘Governing by Numbers’<sup>1</sup> takes as its focal supposition that UK education policy-making is shaped by an increased emphasis on the close monitoring and analysis of education data. By data we mean all elements of quality assurance processes in schools, such as education statistics, tables and figures; every possible school reality categorised, measured and inspected through numbers. We explore how this ‘data dream’ works in conjunction with the new ideas about governance and accountability at the local education authority level in England. Indeed, as we will show, the notion of the *figure* in the education ‘policy-scape’ has changed meaning considerably over the recent years. School figures in the past were usually people [and not data]; they were headteachers, inspectors, teachers and pupils, who were significant in their landscape and in the narratives, reports and texts of their education service. They produced education through their character, stories and daily interactions, and were known for this. They personified the service.

Today the figures have changed, the landscape has been reconfigured. For example, now it is composed of the London school league tables; the European indicators of research outputs; the OECD PISA results; the European Commission’s indicators and benchmarks. Numbers have become increasingly significant in the governance of education in the globalised, knowledge-based world. This paper examines the ways in which numerical data have changed education governance in England in particular, through the application of Thomas Hughes’s thesis on the transformation of governing systems in, what he calls, the ‘second industrial revolution’ (2004). According to him, the hierarchies and centralisation of the first industrial revolution [the Fordist model] have given way to the ‘flatness’ and ‘heterogeneity’ of the ‘second’ industrial revolution or ‘the systems world’. The paper tests this hypothesis on the basis of the English experience at the local authority level and the contradictions of governing education by numerical calculations.

Our own evidence stems from the ‘Governing by Numbers’ project, which comparatively examines quality assurance and evaluation in Scotland and England<sup>2</sup>, as well as within a wider European context. In this paper, we discuss the heaviness and complexity of these new processes of data work, and the role of the local education authorities, the central government and private contractors in governing education: we examine the decline of

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<sup>1</sup> Fabricating Quality in European Education; funded through the UK Economic and Social Research Council, the Finnish Academy and the Danish Research Agency and through Swedish university funding. ‘Governing by Numbers’ is the UK contribution, directed through the Centre for Educational Sociology, University of Edinburgh.

<sup>2</sup> England and Scotland have two different education systems and means of governing them. The main part of this paper uses a case study from an English city and its arguments work relate more to England.

judgement and the rise of measurement in the governing of education systems, and the emergence of a hybrid system in education, neither fully hierarchical nor entirely decentralised. In order to do that, we make comparisons of the development of quality assurance as a governing tool in England and the US and conclude by examining the ways this new governance turn has had an impact on the work of a large local education authority in England. For the purpose of this paper, we have extracted elements from case study interviews conducted as part of the larger project; this case study was one of eight local education authority case studies in Scotland and England.

## **2. To know and to rule: data and the knowledge economy**

Over the last couple of decades the growth and sophistication of ICT has either led to or is led by the requirement to *know* more about the agencies and departments of the state. This is not as a new development as it might seem: the collection of statistical data about state functions, particularly on the resources of the state and people in society, has been part of governing as the state formed itself. Hacking (1975; 1990), Porter (1995) and Desrosieres (1998) have written persuasively about the intimate and interwoven relationships between the development of state administrative structures -what Bruno Latour (1987) calls a 'centre of calculation'- and the development of standardization, methodologies, technologies and related cognitive schemes of statistics and scientific thinking.

However, the speed of change to the economy, and to public services, means that data collection and analysis is behind what some private companies can do across their operations, in the commercial and production sectors. For example, through its Clubcard scheme, the accumulation of customer data about its 12 million customers, allows Tesco [the UK based supermarket group], to understand their lifestyle and food buying behaviour; this information continues to reshape the firm and its suppliers. In the last ten years, the UK government has used this capacity in the private sector as a model for its own operations. However, government information systems still lag behind the rapid transformation of ever-new social realities. Their formalised and top-down functions cannot compete with the interoperability of the information management systems that some private companies have. Nigel Thrift (2005) calls this 'Knowing Capitalism': by this he means a form of capitalism that is self-knowing or reflexive. It is capitalism with a brain, actively seeking new knowledge for competitive advantage, steering and reshaping itself by research -or at least, by analysing data flows.

Yet in the same spirit, the UK government has also been trying to find ways of collecting data about service industries, which now account for almost three-quarters of the economy. Measuring them provided a range of problems as it had always been easier to produce data about simple outputs (manufacturing, for example) than it was about local authority housing or schools. It was also easier to manage and analyse simple production data than, for example, patterns of service use. Data used for governing is intended to be used as a basis for action, on resource, use or policy implementation. The issue here is about the speed, scale and range of the data acquired today, and its use in managing the system at all levels. Quality assurance is a justification not just for standardisation but also for target-

setting, often closely tied with restructuring, budget cutting, steering for national outcomes, reshaping local services and encouraging self regulation.

Knowledge production was thus brought into close relationship with economic policy – what matters is what works for the economy and its efficient management. We experience the promotion of a new ethics and politics of governance in which ‘a particular style of formalised accountability’ has become a ruling principle (Power 1997: 4). The change of behaviours demanded of sectors, organizations and individuals is closely tied to the creation of new sources of data because “political judgments are implicit in the choice of what to measure, how to measure it, how often to measure it and how to present and interpret the results” (Power 1997: 3). In education, governing knowledge, produced and analysed by both international organisations (like the EU and the OECD) and government agencies, mobilised by actors taking that knowledge and ‘drilling down’ -as they themselves often put it- to the individual school, classroom and pupil provides a resource through which surveillance can be exercised. While experts promote ‘calculative rationality’ (Bauman 1992), political technologies disguise how power works:

‘Political technologies advance by taking what is essentially a political problem, removing it from the realm of the political, and recasting it in the neutral language of science’ (Dreyfus and Rabinow 1982:196).

These ‘political technologies’ seek to bring persons, organisations and objectives into alignment. In a sense, this is the significance of the governance turn: in brief, first, a shift from centralised and vertical hierarchical forms of regulation to decentralised, horizontal and networked forms and, second, a centring on the subject and a disciplining of them. Governing has been associated with data [as well as judgement], however we are signalling a shift from a recording of the past to a shaping of the future, and especially into the development of self- governing subjects. The key to this system of governmentality lies in inculcating new norms and values by which external regulatory mechanisms transform the conduct of organisations and individuals in their capacity as ‘self-actualising’ agents, so as to achieve political objectives through ‘action at a distance’ (Miller and Rose 1990:1)

So, how do developments in the English education system over the last ten years fit in this new context? And how does history justify new governing choices and trends? The next section will attempt a brief overview of the shift from judgement to measurement in the quality assurance processes in England [coming closer to the US] in the 20<sup>th</sup> century, while keeping Hughes’ thesis in mind and testing it in the relevant contexts.

## **2. Hybridity and transformation: the changing face of education governance in England**

Traditionally, education systems varied in the way they were administrated or managed but in each case, there was distance through most of the 20<sup>th</sup> century between production system management and public service management. Each felt itself to be, or was managed as if, there was a distance between production and service, and even between private and public. Yet there were parallels. Hierarchy, standardization, centralization, expertise and bureaucracy signified the first industrial revolution (Hughes 2004: 100) and while Fordism

is associated with advanced and concentrated sites of production, there were elements of this first wave industrial revolution in education systems as well. Schools operated within hierarchies of control, often replicated within local authorities; while bureaucrats were few in number, systems and rule bound behaviour were managed by them; key elements of building design or examinations or intelligence testing were standardized; and expertise was associated with the inspectorate of schools. This was the British and Commonwealth systems of education. Centralization was sometimes more indistinct, operating through examination boards, grant formulas or inspector reports. This system worked reasonably, coping with stability and rationing, but found expansion and massification much more complex:

A hierarchical management structure feeding information up to a few executives who pass orders down, is not .. sufficiently informed and flexible to respond to the complexity of present day organic systems (Hughes 2004, p79)

Information systems were crude and needed intensive human involvement in collation and analysis. In the UK, the quantitative dimension of education was limited and simply categorised and collected. Indeed, it was recognized early on, in a standard guide of the 1920s, that there were limits on the 'demands which the Board of Education [could] prudently make on Local Education Authorities for statistical information [and that] the resources of the Board for the extraction and appropriate tabulation of administrative data are not unlimited.' (Selby Bigge 1927: 220). Instead, inspection and examination were used as the means to judge the efficiency of schooling [however it was defined at the time]. Uniformity of judgement and practice in the inspection process was to become a central question in the 'measurement' of education. Experience and advice were the core skills of inspection (Selby Bigge 1927: 154). In the absence of standardization of judgements about the meaning of efficiency, a key term in the administration of education, it was argued that the central authority was able to make solid judgments about it nevertheless:

This process is one of comparison of school with school, of area with area, of branch of education at any one period with the same branch of another. Any conclusions must in the last resort rest on what is found in individual schools and become more precarious and disputable as they become more general and cover more ground [Selby Bigge 1927: 47].

In the same early decades of the 20<sup>th</sup> century, the US was less beguiled by judgement and focused instead on measurement:

To have in education the real benefits of quantitative science, we must spend arduous years in devising, testing and standardizing units of measurement. [Thorndike 1904 quoted in Lagemann 2000]

Measuring makes systems transparent. In Lagemann's analysis of Thorndike, it created a new relation in education between the measurers, the managers and the teachers. Managers would come to define education, using statistical data and expertise, and teachers would be responsible for achieving what was asked of them. School data was to become the main preoccupation and definition of the new professional expert, the newly defined school administrator. Measuring, the main element of the contemporary definition of education research, would be undertaken by managers. They would not manage the day to day

processes of schooling but act as a new body of people, the scientific experts of the new administration. Their tools of trade were borrowed from the business domain and the professors of education – tests and statistics. Written within the context of the American efficiency movement in education, Sears places the ‘measurement movement’ as a study across mental measurement and school management;

‘so completely has the idea of measurement permeated every aspect of educational theory and measurement...[broadly] the movement represents virtually a new philosophy of education [and in a narrower sense] a new technique, a new set of devices for use in the study of education. (Sears 1924: 117)

To measure efficiency of action, resource or taxes, measures were needed which could produce standards applicable across contexts and spaces. These measures had to make comparable the management of education systems in different cities, or schools in the same city, or the teaching of a subject within the same school and city and between them. While accounting measures or work time measurements were developed to standardize elements of the system, measuring improvements or quality or efficiency in the school [sometimes called child accounting] were more difficult. In this situation, the production of school tests was important. The tests could enable progress or efficiency to be measured and compared; they rendered schooling processes transparent and so manageable. Manageable meant they could be planned and ordered through effective standards rather than a series of negotiations with or haphazard acts over human processes in the workplace.

Until the 1950s, this was the difference between the US and UK influenced systems of education; the former was based upon quantitative measurements, and the latter on professional judgement; the former saw the rise of measurement expertise, and the latter, inspection knowledge.

This changed from the late 1980s as the education systems of the UK generally moved to wards local financial management and the decentralization of decision making. Performance targets, including staffing targets, agreed with the Local Education Authorities (LEAs), meant that information needed for strategic and operation planning was in demand. Information flowed through the school office to the local authority, through new commercial software systems, at more and more frequent intervals. This information began to be used for more sophisticated purposes, for example, across secondary and further education, including course unit costs and student production costs. The local education authorities had to develop a new role; no longer disbursing resource and information in a piecemeal system, it had to establish clear guidelines -and soon performance indicators- about schooling outcomes and value for money procedures. New accounting software in schools such as the *School Information Management System*<sup>3</sup>

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<sup>3</sup> This is management information software purchased by Capita Children Services, ‘the UK’s leading supplier of Management Information Systems to the Education Sector and Children’s Services Divisions within Local Authorities’. According to the company’s website, ‘SIMS .net is a Management Information System (MIS) designed specifically for schools to tackle the issues that really matter to them, such as reducing workload, raising pupil performance and being ready to support the latest government initiative’ (online, Capita, 2008)

(SIMS), the commercial software which was used by LEAs and schools in England automated many aspects of teacher workload and its information duties. It was even advertised as able to “predict individual pupils’ future achievement”, and able to raise standards in teaching and learning – by tracking the performance of individuals or groups in the school and comparing their achievement with national or school guidelines. While inspection played a strong role as well, both inspection and quality assurance systems were to be based on performance data. The leading late 1990s promoter of this approach argued that,

We are among the world leaders - in part, this is a factor of our constitution which gives central government extensive power to implement change - a risk of course as well as an opportunity, but it is also a result of the quality of performance data and the capacity developed at LEA and school level over the last decade since the Education Reform Act, to manage change successfully....[To be ] world-class in five or ten years time we need to study trends....Here in this country we are hugely advantaged in this respect since in terms of the data our system produces and the quality of research with which we analyse that data, we are truly world-class already (Barber 1998).

Under the Labour government [from 1996 onwards] the collection and analysis of increasing amounts of assessment data, particularly performance data, by schools has been viewed as crucial to monitoring and promoting pupil achievement and in progressing towards government attainment targets. The ability of private companies to manage information flow, and to create systems which deliver information about the goods or services produced, appears to be the model upon which new governance in public services works. Companies who work, merge or compete with each other may become isomorphic or develop identical qualities, through the actions of mobile professionals or through mimetic response to other successful companies (Rhoades and Spron 2002: 3). Not only are private companies an exemplar in the system, for their use of data to steer their organizations, but they are increasingly partners in the development of this intensive data based system of production.

In the description of the education system in England, some common features can be seen with other forms of production and service. They are built on data collection within large quality assurance systems and dependent on a range of information and communication technologies. Data is produced, reviewed and circulated constantly to steer the system. Data provides shape and direction as it used to compare and predict. Metaphorically, it is viewed as a single but complex, reflexive system, responding to feedback (Hughes 2004: 95/6). This is not just a description of England, of course, since the system of comparison, the projection into an imagined space of global competition, is borderless. Knowledge is to be mined wherever it can be found as long as new experts can guarantee its value.

So, returning to our examination of Hughes’ thesis, the Fordist model of organization, with its emphasis on hierarchy, standardization and centralization, was not entirely congruent with the UK education systems, but there were overlaps. Hierarchy and bureaucracy was built into the professional and administrative relations of education although standardization of processes, especially in assessment, were rarer, except in IQ testing. Unlike the US, the system depended upon judgement not data or experts, and upon

comparison and experience and not measurement and standardization. Yet this is not the case today. The systems are much nearer together, with a similar impetus even though uneven or different time/space positions. The impact of private company models has probably been greater in the UK [particularly in England], starting as it did from its public [state] model of education and from its suspicion of data in education systems (for most of the 20<sup>th</sup> century):

Hypercritical Europeans found simplistic quantification to be the hallmark of the mechanized Americans, who believed that bigger is better. They measured achievement numerically in the workplace, professional life and sports... [they] spoke and wrote mesmerized by the spell of the quantitative . They could not penetrate qualitatively the profundity of life. (Hughes 2004: 78)

The global policy space is envisaged, or recognized, as a space of numbers; no longer American, it is international.

Hughes argues that the second industrial revolution has moved away from hierarchy, centralization, expertise and bureaucracy and towards flatness, inter-disciplinarity, heterogeneity, distributed control, meritocracy and nimble flexibility. There are mixed messages here from UK education [or more particularly in this case, English education]. Technology driven features of this revolution are recognizable in education. Data flows around the system, connecting together small and large schools, towns and cities, and local and national authorities, often aided by the software of private companies. Heterogeneous elements allow this process to speed and extend. Data software, management consultants, assessment offices, local and national inspections, private companies, bands of data input assistants, reams of documents and web based files ports, are all part of this system. Distributed control makes questions about control more difficult; control is now hidden among a range of partners, standards and procedures but the centre still holds:

In fact actually we've been developing a concept here in the Department which we've called 'the bridge' where we corral all of this data and information and at a glance now across all local authorities in England you can go downstairs and look at a big screen and you can look across all the key performance areas and that's actually across all the social care areas as well as education. So at that level we're doing quite active performance management of the system and that's quite a powerful tool (UK DCSF<sup>4</sup> - official)

Agents freed from older bureaucracies and their hierarchies have been made responsible for themselves; self governing means governed or steered at a distance. This happens through data based performance systems: the regular, sometimes even continuous audit of indicators, benchmarks, and targets. The devices of performance produce data which, in electronic form, flows from the classroom, school, authority or company and into vast metaphorical vats where it is cleaned, filtered, sorted, and the calculative rationality proceeds. Control through performance has moved from the application of external judgement and organizational or professional rules and into fast data and 'self government'.

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<sup>4</sup> In England, the Ministry of Education has had several changes of name; it was known as the DES [Department of Education and Science], the DfES [Department for Education and Skills] and today, as the Department of Children, Schools and Families [DCSF].



What we want to do next is show how data has become a crucial element of education. Data and its advantages and problems are at the core of this governance shift. We ask questions about Hughes's (2004) ideas – the situation seems to be trapped between his two revolutions: it appears as centralized *and* flexible; closely monitored *and* de-regulated; self-evaluated *and* performance driven; locally decided *and* centrally controlled. In order to do that, we explore sites of data work that act as mediators, receivers and diffusers of governing mechanisms and controls. This is the meso-level between government and school –the local education authority level. Through interview data, we present and analyse the case of ECS1<sup>5</sup> – a large LEA in England.

### **3. Nodes and parts: the role of the local education authorities in education governance in England**

In the city [ECS1], the Assessment and Statistics Units have been based together, for several years now, in an old secondary school campus on the edge of the city in a post war suburb. Both are concerned with performance data. In one of the larger rooms – cluttered with several large desks, shelves with files, wall production charts and computers- many of the main tasks of the city's education data management are carried out. It is a very busy hub of activity as inquiries are received, pupils are being tracked, attainment levels are clarified and schools consulted and advised. The email, the post and the telephone are the office's main connections with the outside world and are constantly used. Data appears to have both a physical and a virtual form:

The Assessment Unit was set up in 1991 when I joined, just to deal with the National Curriculum...Traditional data has got more and more sophisticated and more and more.... collected – this year they are collecting children's height and weight ....there are always new things being added on. [P1 (senior manager)]

Together the two Units provide information and advice on school and pupil performance data analysis and interpretation; school context data [e.g. deprivation indices]; statutory target setting; school census and other school data collections and ESC1's central database of children. They undertake research and evaluation, obtain feedback from parents and pupils and provide guidance and training for staff on the interpretation and use of performance data for setting targets, tracking pupil progress and evaluating outcomes. Data is provided for the individual school, for school clusters or networks, and by geographic areas. For example, the Individual School Data includes performance trends for each Key Stage [of the Curriculum], pupil level 'forecasts' to support target setting, school and pupil level value-added<sup>6</sup> analysis and school attendance and exclusion trends. Comparative data works with software that includes attainment and value-added analysis for each school and for groups of schools, and produces analysis by gender, ethnic group, pupils with special

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<sup>5</sup> Code name for English Case Study 1.

<sup>6</sup> Value-added analysis means that each pupil's performance in a set of tests is compared with the middle performance of all pupils nationally who had a similar performance at the previous test level. The result does not depend on how well pupils do in outright terms, but how much they have improved, whatever their ability.

educational needs, looked after children, pupils eligible for free school meals etc. Since 2007, the School census is to be carried out three times a year (January, May and September). Finally, the creation of the Children's Database follows the Children Act of 2004 which asked local authorities and partner organisations to maintain an accurate and up-to-date database of children.

Datasets are now coming from a lot of different sources, including schools. ... from 2008 there will be a National Chart Index for England which means that every kid in the country will be in a central database and the management of that data is a responsibility of local authorities....So the idea of this central database was ... that you know where all the kids are and so if some of the children in the database don't have a school record then you know you have to check that up. But the main use is for different children's services to use this database to see who else is working with that child. So if you are a teacher that is concerned about the safety of a child you can check if that child is already known to social care and if it has a social worker, it gives you the contact details of the social worker. [P2 (senior statistician)]

The task of managing data includes their constant organizing, brokering and cleaning in order to flow. The phone constantly rings. It could be fairly straightforward, progress chasing, or it becomes a telephone-based hunt around the city for clean data. At times of the year, the atmosphere in the office, and in school offices dealing with data, is hurried, furious and confused. Confidentiality is also a problem:

The first thing you have to ascertain is who are they? Are they a bonafide person who can [have] access to this data and what do they actually want it for? [P1]

The city is linked in a series of work relations with the local schools and the government. It works with schools directly, drawing data about the pupils. It works with the centre, either the DCSF or its agencies or contractors, cleaning the schools' data it sends to them and sometimes receiving dirty data back: as we shall see, in this relation, it is an outsider, excluded by structures over time but practically essential because of its expertise, trustworthiness locally and supporting processes. The office represents a significant actor, because of tradition and expertise.

In the early 1990s, these city schools tended to be described in broad spatial and class terms, where district and area were seen as synonyms for deprivation, poor schools or low achievement. The production of local comparative data meant that these older and often politically and educationally useful terms were not easily usable anymore. Schools could be clustered together, not by geography, but in various useful ways, for example, their similar social profile but dissimilar examination results. Comparator schools, using new data, could work together on science curriculum processes and results, even though they were across the city from each other. Within a few years, simple data, like free school meal provision, a standard indicator of school achievement, was being replaced by new sources of data and new ways of analysing data. Within the city, the driver of this change was the new Director [using the political capital available locally] but the engine of improvement was the city professionals - the advisers, head teachers, teachers and specialists. The city's pride, faced with failure in the rankings, and a contemporary social justice argument, focused on the multicultural city, were utilised in this process of transformation. In addition, during the 1990s, the creation of data based governing of the city schools,

replacing more paternal, random or inefficient decision making, was welcomed by many headteachers. It seemed to fit with either the competitive agendas of suburban schools or the strong social justice agendas of the urban areas. The city developed an identity as a successful [or improving] city in education, after a long period of neglect. As a city which was losing a lot of its industrial base and not acquiring the capacity to attract service based companies, this identity was important. It was helped by a residual strength and sense of place in the city, which was used to change itself.

However, as the local authorities in England developed their own systems and vernacular practices, at the turn of the century, new Labour began to overlay and then supersede their efforts with national measures:

It was probably 5 years ago [2001] when the DfES with OFSTED<sup>7</sup> started to look at common systems for assessing the performance of schools that would be available in electronic format where you can drill down not only to the level of school performance but also in terms of groups of students... So [in 2001] they were looking at how they may do this and three years ago they produced their first version which they call 'pupil achievement tracker' which was of mixed... it wasn't a perfect system by any means and there were some problems with actually running the software. A lot of the data had to be put in locally which put a lot of schools off in the first place but that was the first time that there was any national system for analysing data which was more than just having school league tables. Basically what we were doing in [City] could be done nationally. [P2]

They are attempting to get every single school in England, primary and secondary, thousands of schools, all the data at an individual pupil level in a massive database held on a server somewhere in London which then is accessed by all the schools in the country and OFSTED inspectors, and school advisors and other people, in order to analyse the data [P2]

An incentive in the system was that schools could make a clear link between data returns and income; being clear about the data returned is essential if money is attached to the data. Every extra child meant an additional funding point - data had to be kept up to date. Perhaps the key to compliance is the strong system of external accountability in which it is embedded:

If you removed inspection and performance tables out of the equation, the level of interest in this would be significantly lower. There would still be some schools that would still be interested in doing it but a lot of schools wouldn't... partly because of the effort needed, partly because of the arcane nature of the way the data is provided [P2]

However, problems with the interoperability of national systems means that the city policy is to continue with local support on data:

What's happening so far is that because the national systems aren't yet robust enough and reliable enough we are still supporting our schools in the same way and the schools say they want that. [P2]

As well as the complexity and scope of the data they are now dealing with, and the training and techniques needed to produce operational value in schools, there is the question of the

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<sup>7</sup> The Inspection Agency was known as OfSted, the Office for Standards in Education, and now as the Office for Standards in Education, Children's Services and Skills

speed at which this data is now flowing between schools and the local authority. While once there was a winter pupil census, managed by a paper-based process, now there was a constant flow of data:

In effect it is constantly on-line, it works as a weekly up-dating process. Automatically. So each week the computer asks for this data, the school gives it and then sticks it in a central database and then we find that it does not match properly ! ... now we are talking about on-going electronic systems that operate all the time, so when an event happens it is recorded. So if a child loses school tomorrow we don't wait until the end of the term, we know it real-time on a weekly basis. [P2]

In the past, assessment data gushed through the school and into the office in the summer term, and the census return flowed hard in winter. This was the early rhythm of the year, intensive cyclically with periods of calm preparation in between.

From January to May, there was more of a chance to reflect upon the data in the past....whereas we used to have a quietish period it doesn't really exist anymore I'm afraid. We are doing all sorts of reports to go up on the web... it seems as if we are constantly disseminating information for various things and answering queries on it really... there is all these initiatives going on. [P1]

Both the assessment and statistics Units are trying to manage the space between the central government and the LEA. Generally, with a lot of effort, they can resolve most problems within their boundaries; this is done through personal relationships, helpful support, clear documentation, tailored city systems. The 'known' is all the data that they hold - the unknown is,

what on earth is the government up to this year and how're the schools going to get the stuff to me ... so I am sort of the broker in the middle I suppose. [P1]

The 'unknown' is the centre. The office and the schools work in an arena that they don't control. However, where is the centre? In reality, it seems as if there is no centre, but a series of contracted arrangements with private data companies, working with DCSF. In order to manage this complex and demanding work process, DCSF created a regular series of meetings with the LEA data officers. In these meetings, brokering takes place but within its asymmetric relations:

Back in 1997, when things were starting up, they were sloppy and difficult, there were problems, ... moaning to DfES...we began to get RIG meetings [and you have to laugh] rapid integration something or other meetings at the DfES –and rapid has to make you laugh because everything always took ages but never mind...we said why don't you have a [city] area, we would loan you a room with computers, you could give the stuff straight to the LEA, and we would send it to schools on your behalf? They didn't want us to do that. They wanted to control it but they couldn't, it was too big a job. [P1]

Brokering operates to manage the workflow problems which stop the city achieving its own aims; to service its teachers and help them improve education. Given the constant push from the centre, these meetings offer a space in which to influence the central technocrats and haggle:

That's where these meetings are useful because you do go up and chat with these powerful ...and to be honest... even if you don't say it in the main forum, you catch them over lunch and you say there is a particular problem and they will say email me and because [city] is so big, they are often waiting for our data feeds ... to give them an idea about how things are going to go nationally – they want to know if things are getting better. [P1]

The LEA has a history of development responsibility for its schools, and long standing deep relations with them. The new direct relation between the centre and the school, envisaged in this construction of data production and flow, denies the role of the LEA. The LEA represents the old relation of the centre and the local. While this is the new discourse of education and its governance, local government does not intend to be excluded. Its arguments are not the old ones – ‘these are our schools’ – but the new one – ‘our responsibility for improvement’:

so if something does go wrong even though we are not supposed to be involved , we get the phone call and we don't say its not our problem, we sort it out [P1]

Regulation and technology have not created a new governance relation, only attempted to. Helpline culture and contract workers have not, in this case, substituted for a direct and supportive local relation. Questions arise about trusting data, and whose data to trust. Schools are becoming better at managing data and the political space around it. There is a rise in expert conversations in the city. Headteachers, school assistants, governors and teachers are able to talk about the problems of data and its manipulation. They have become much more expert:

It is also the case that if enough LAs feel that there are new questions to be asked about data and its use in governing education, and on behalf of schools, then presumably we get together and say to the DfES that ‘sorry, you have to look at something because what's on the ground, that we know...your model needs tweaking a bit’ [P1]

However, the processes that data undergo at central level is becoming more opaque for the LEA, and what was once possible is becoming impossible. While data flows more easily, as it becomes more refined, through complex procedures which few understand, then it begins to lose persuasive power and is interpreted as at least unhelpful, even arbitrary.

## **Conclusions**

### **A paradoxical positioning – the excluded centre**

This paper has examined the growth of the dream and the practice of new governance, and its heightened delusions of seamless control through transparent system data. We have argued that the shift of control mechanisms from hierarchies of officers and rules to data based systems and software has changed education governance. Judgement has been replaced by calculation, and bureaucracy by heterogeneous relations.

The paper tries to show how the education system has been reconfigured. The narratives of the past have been replaced by the imaginaries of the future. A data production process has been designed to exclude firstly, one of the old core partners in the education service, the local government, and secondly, intuition, experience and judgement, the skills of its

inspectors and officers. Contracted companies and direct school connections, linked together by transparent webs of data and a centre of calculation, appear to be the goal of this reconfiguration. Yet the schools, particularly the primary in the city, and the secondary as well in the country, may still see the LEA as the legitimate and helpful local guardian of education. The companies, and through them, the central government agency and department, appear to have no view of the LEA, neither historical nor democratic or even as a knowledge broker. It exists as an organization which may help to sort some data flow and validity problems – when absolutely necessary.

Hughes regarded the hierarchy, centralization, expertise and bureaucracy of the first industrial revolution to have given way to the ‘flatness’, ‘distributed control’ and ‘heterogeneity’ of the ‘second’ industrial revolution or ‘the systems world’. Technically, it is possible to view the new system of governance as representing this second industrial revolution. It is heavily dependent on advanced systems software, computing power and data specialists. Indeed, it is the same set of skills and resources which enable commercial companies to sift, shape and construct relations with consumers and their buying power. These companies are both exemplars of the possible and often, through their expertise, agents of this governance step. Political visions of the future society have been driven down into contracted relations of performance and production. Self governed behaviour is the object. In this, technical support has also metamorphosed; it is both technically capable and politically involved. It creates the data flows and analyses and the shaping of future behaviours by indicators and innovatory schemes. The understanding of the present is seamlessly turned into the construction of the future. As the future has no shape, behaviours are determined to be flexible. Education data passes through a series of constructed nodes as it flows through the system; it is coded to enable smooth passage; it is drilled and mined; and it is constantly re-imagined. New hybrid technicians re-engineer its flow paths, its constituent objects, its protocols and its manuals. They operate on the basis of problems [policy and material problems of flow] and technical imagination [the capabilities and potential of data and systems].

In this way, Hughes’ analysis appears to fit the new governance of education. However if the perspective is shifted from the technical [although, as we have shown, even that has hybrid features], and onto the political, then it is not just flexibility, distributed control and flatness which is present. Local authorities still represent a locality, a political entity in education, with its own history, strategy and resources which have been politically excluded from many elements of the national data management systems and yet they are essential to the effective working of that same system. They are both necessary and not in partnership. In some cases, the demands of the new system will have enabled some local authorities to upskill themselves but it is more likely that they will have been turned into rule followers, managing the wide range of tasks, seasonal and continual, demanded by the centre, or even processing centres, checking software problems. Yet although data flows, there are physical, expert and contextual processes which enable it to do this; without them, flow is halted and data sticks. Our case extracts suggest the crucial role of the local authority in helping the flow, without which it would soon solidify the fluid conduits it uses. Also, data demands sophistication of use and people to learn to process it. However, data in such force exists because of the governing demands [and redesign] in the system

and data cannot be divorced from this – people manage data, and argue about it, to widen their space of manoeuvre. Seen in this way, it is not flatness or distributed control which is visible but a hybrid in which standardization, centralization and expertise [key elements of the first industrial revolution] are still prominent in education in England as well. The language of the technical imaginary has been merged into a new governance model for education. Unable to renew itself, the education system has been turned into a hybrid of constant readjustment, micro control and centralization. Transparency of data has replaced hierarchical judgement but only as a means of effective control. Private companies, managing data processing services, and using their consultancy and strategic divisions, have produced system heterogeneity and distributed production. Centralization is untouched, possibly more effective and certainly dominant. Education is not located in the first or second industrial revolution but in a hybrid of both.

Not many years ago, it was possible to describe the English education system in common explanatory phrases; it was a ‘central system, locally administered’ or it was a ‘partnership between central and local government, and the teaching profession’. Not only are these phrases redundant now, but they cannot be replaced by new ones. The effect of the quasi-market, micro-management, performance delivery systems, and powerful regulatory bodies [like Ofsted], combined with rapid and short-lived innovations and almost no system memory, is that there appears to be a systemless system in operation. Studying closely the working of standards, targets, data flow, and actual work within it is vital now, in the absence of core myths and the omnipresence of normative discourses of improvement. Data flow and governance is a fruitful source of study, and may even be the only place in which the ‘English education system’ can be viewed today.

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